Ontario

Ministry of Northern Development and Mines

Mines and Minerals Division

GEOLOGICAL DATA INVENTORY FOLIO

GDIF 588

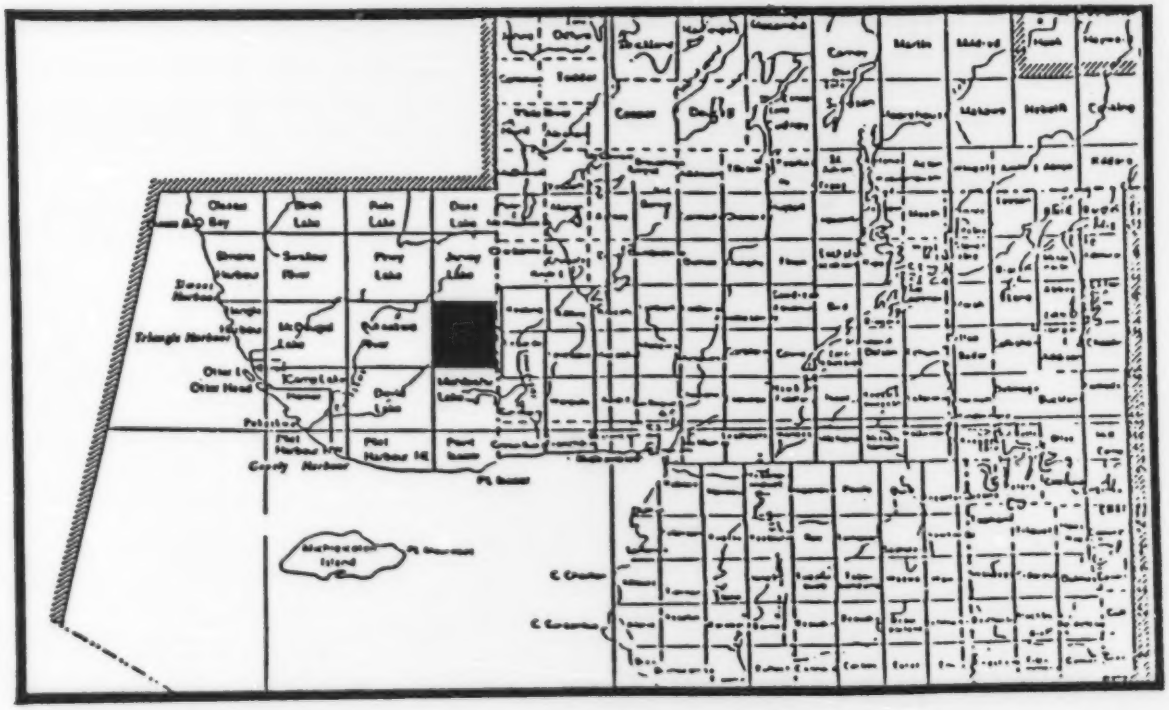
ABBIE LAKE AREA

Sault Ste. Marie Mining Division

N.T.S. No. 42C/03NW

Compiled by the staff of
the Resident Geologist's Office

WAWA



LOCATION MAP

Mining Claim Map Number M-8

This project was funded by the Northern Development Fund, Wawa Economic Development Initiatives

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Wawa Resident Geologist's Office, 1991. Abbie Lake Area, Geological Data Inventory Folio 588; compiled by the staff of the Resident Geologist's Office, Wawa.

Original Compilation by: Howson, Tim, 1986.

Date	Page(s) Revised	Revised by
11/89	1, 3-1, 4-3, 4-4, 5-1, 5-2, 5-3, 5-4, 6-1, 6-2, 7-1, 9-1, 10-1, 11-1, 11-2, 11-3, 11-4, 12-2, 13-2, 14-1, 15-1	C.L.

Date	Page(s) Revised	Revised by

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TABLE OF CONTENTS

Data Sources Checklist 1

Mineral Commodities Reference List 2

Mineral Occurrences ..... 3 - 1,2. . .

Type of Work ..... 4 - 1,2. . .

Drillhole Summary ..... 5 - 1,2. . .

Airborne Geophysical Survey Data ..... 6 - 1,2. . .

Geochemical Survey Data ..... 7 - 1,2. . .

Geochronology Data ..... 8 - 1,2. . .

Air Photographs, Mosaics, Imagery ..... 9 - 1,2. . .

Topographic Maps ..... 10 - 1,2. . .

Newspaper Clippings File ..... 11 - 1,2. . .

OGS/ODM General Index Search ..... 12 - 1,2. . .

Selected References ..... 13 - 1,2. . .

Notes ..... 14 - 1,2. . .

Addenda ..... 15 - 1,2. . .

Addenda 1. Map showing air photos available for viewing

ACCOMPANYING MAPS (see map legends on outside back cover).

A. Files Index Map (s) ..... Map A-1

B. Exploration Data Map (s) ..... Map B-1

ABBREVIATIONS LIST

A.F.R.O.	Assessment Files Research Office (Toronto)
Ann. Rept. (A.R.)	Annual Report
A.R.I.P	Aggregate Resources Inventory Paper
Bull	Bulletin
C.I.M.M.	Canadian Institute of Mining and Metallurgy
C.J.E.S.	Canadian Journal of Earth Sciences
C.M.J.	Canadian Mining Journal
Econ. Geol.	Economic Geology
E.M.R.	Department of Energy, Mines and Resources
E.P.B.	Earth Physics Branch
G.A.C.	Geological Association of Canada
GC	Geological Circular
GDIF	Geological Data Inventory Folio
Geol.	Geology
Geol. Soc. Amer. Bull.	Geological Society of American Bulletin
GR	Geoscience (Geological) Report
GSC	Geological Survey of Canada
I.L.S.G.	Institute on Lake Superior Geology
IMR	Industrial Mineral Report
I.O.C.	Report of the Iron Ore Committee (1923)
Jour. (or J)	Journal
MDC	Mineral Deposit Circular
M.D.I. (R)	Mineral Deposit Inventory (Record)
Mem	Memoir
MNDM	Ministry of Northern Development and Mines
MNR	Ministry of Natural Resources
MP	Miscellaneous Paper
MRC	Mineral Resources Circular
N.M.I.	National Mineral Inventory
NOEGTS	Northern Ontario Engineering Geology Terrain Study
NTS	National Topographic System
O.B.M.	Ontario Bureau of Mines
O.D.L.F.	Ontario Department of Lands and Forests
ODM	Ontario Department of Mines/Ontario Division of Mines
ODMNA	Ontario Department of Mines and Northern Affairs
OFR	Open File Report
OGS	Ontario Geological Survey
P.R.	Preliminary Report
Prelim. (or P)	Preliminary
R.C.	Royal Commission on Mineral Resources of Ontario (1890)
S.M.D.R.	Source Mineral Deposit Record
SOEGTS	Southern Ontario Engineering Geology Terrain Study
Sum. Rept.	Summary Report
OFM	Open File Map
OCRS	Ontario Centre for Remote Sensing
CCRS	Canada Centre for Remote Sensing
WRGO	Wawa Resident Geologist's Office

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DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no': if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	Yes	T.H.
2	Assessment Files Research Office, Toronto	Yes	A.F.R.O.
3	OGS/ODM General Index	Yes	T.H.
4	Catalogue of Airborne Geophysical Surveys (ODM)	Yes	T.H.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	No	T.H.
6	ODM Industrial Mineral Reports	No	T.H.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	T.H.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	No	T.H.
9	Newspaper Clippings File	Yes	C.L.
10	GSC Index to Publications	Yes	T.H.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	T.H.
12	OGS Index Maps	Yes	T.H.
13	Source Mineral Deposit Records (OGS)	No	T.H.
14	Author - Subject Articles File	Yes	T.H.
15	ODM/OGS Miscellaneous Papers	Yes	T.H.
16	ODM Geological Circulars	No	T.H.
17	OGS Study Series	No	T.H.
18	ODM Preliminary Reports	No	T.H.
19	ODM Bulletins	No	T.H.
20	ODM/OGS Open File Reports	Yes	T.H.
21	OGS Northern/Southern Ontario Engineering Geology Terrain Studies	Yes	T.H.
22	OGS Aggregate Resources Inventory Papers	No	T.H.
23	OGS Mineral Potential Maps	Yes	T.H.
24	Drill Core Library Catalogue	Yes	T.H.
25	Algoma Central Railway Maps	Yes	T.H.
*			

ABBIE LAKE

MINERAL COMMODITIES REFERENCE LIST

anh ..... Anhydrite
ank ..... Ankerite
ap ..... Apatite
arg ..... Argentite
As ..... Arsenic
asp ..... Arsenopyrite
asb ..... Asbestos
ba ..... Barite
be ..... Beryl
Bi ..... Bismuth
bn ..... Bornite
Cd ..... Cadmium
calc ..... Calcite
carb ..... Carbonate
cc ..... Chalcocite
cp ..... Chalcopyrite
ch ..... Chert
clay ..... Clay
Co ..... Cobalt
cob ..... Cobaltite
Cu ..... Copper
cor ..... Corundum
dol ..... Dolomite
ep ..... Epidote
fel ..... Feldspar
fl ..... Fluorite (flurospar)
fu. ..... Fuchsite
gn. ..... Galena
gt. ..... Garnet
goe ..... Goethite
▲Au ..... Gold
gf ..... Graphite

gl ..... Gravel
gyp ..... Gypsum
hem ..... Hematite
Fe ..... Iron
▲IF ..... Iron Formation
jas ..... Jasper
ky ..... Kyanite
Pb ..... Lead
lim ..... Limonite
Li ..... Lithium
mgst ..... Magnesite
▲mag ..... Magnetite
mc ..... Malachite
Mn ..... Manganese
mb ..... Marble
mar ..... Marcasite
ma ..... Marl
mi ..... Mica
mo ..... Molybdenite
Mo ..... Molybdenum
mon ..... Monazite
ne .... Nephelite (nepheline)
Ni ..... Nickel
Nb ..... Niobium
Pd ..... Palladium
pent ..... Pentlandite
Pt ..... Platinum
▲py ..... Pyrite
pyl ..... Pyrochlore
po ..... Pyrrhotite
q ..... Quartz
qcv .. Quartz carbonate vein

ra ..... Radioactive minerals
RE ..... Rare Earths
sd ..... Sand
sgl ..... Sand and gravel
ss ..... Sandstone
scap ..... Scapolite
shee ..... Scheelite
serp ..... Serpentine
sh ..... Shale
sid ..... Siderite
si ..... Silica
▲Ag ..... Silver
sl ..... Slate
sm ..... Smaltite
sod ..... Sodalite
spec ..... Specularite
sp ..... Sphalerite
spd ..... Spodumene
s ..... Sulphides
talc ..... Talc
Te ..... Tellurium
th ..... Thorite
Th ..... Thorium
ti ..... Titanite
Ti ..... Titanium
tour ..... Tourmaline
W ..... Tungsten
uran ..... Uraninite
U ..... Uranium
verm ..... Vermiculite
Zn ..... Zinc
zr ..... Zircon

ADDITIONS

※

▲ Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

ABBIE LAKE

MINERAL OCCURRENCES			Source Min. Dep. Record	References in OGS Min. Dep. Cir. and Indus. Mineral Rpts.	Additional References and/or Remarks
Map Ref. Letter	(see Data Map) Name(s)	Mineralization			
A	Unnamed Occurrence	py			-see file Keating 0012-B1
B	Unnamed Occurrence	Au, Ag			-see file Keating 0012-B1
C	Unnamed Occurrence	Au			-see file Keating 0012-B1
D	Iron Lake Range Prospect	IF			-see ODM Map P. 507 -see file Keating 0012-B1 -see N-2, p. 14-1
E	Unnamed Occurrence	py, mag			-see file Keating 0012-B1
F	Brown Vein	Au			-see file Abbie Lake 42C/03NW 0019
G	Unnamed Occurrence *Not Identified on GDIF Exploration Data Map	IF			-see file Abbie Lake 42C/03NW 0019 -Au, Cu content

ABBIE LAKE

TYPE OF WORK (see Files Index Map) Exploration Files		Numbers below represent the year of the work ; e.g. 68 for 1968																			
										Airborne			Ground							
Map Ref. No.	Company/ Author (file number)	Geological	Geochemical	Trenching or Stripping	Drilling	Assay Data	Underground Work	Prospectus Notes Corresp		Mag	EM	Rad	Mag	EM	Rad	IP	Self potential	Resistivity	Other Data	or footnotes
1	Noranda Exploration Co. Ltd. (42C/03 NW 0010-A1)												78	78						
2	Noranda Exploration Co. Ltd. (42C/03 NW 0010-B1)												78	78						
3	Phelps Dodge Corp. of Canada Ltd. Miro Mines Ltd. (42C/03 NW 0011-A1)												70	70						
4	Tundra Gold Mines Ltd. (42C/03 NW 0012)									83	83									
5	Noranda Exploration Co. Ltd. (42C/03 NW 0013-A1)				79	79														
6	Canadian Pacific Railway Co. (Keating 0012)	57						58												

SEE PAGE 13-1,... NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

ABBIE LAKE

TYPE OF WORK (see Files Index Map) Exploration Files		Numbers below represent the year of the work ; e.g. 68 for 1968																			
Map Ref. No.	Company/ Author (file number)	Geological	Geochemical	Trenching or Stripping	Drilling	Assay Data	Underground Work	Prospectus Notes Corresp	Airborne Mag	Airborne EM	Airborne Rad	Ground Mag	Ground EM	Ground Rad	Ground IP	Ground Self potential	Ground Resistivity	Other Data or footnotes
7	Noranda Exploration Co. Ltd. (Keating 0013-B1)	80																
7	Noranda Exploration Co. Ltd. (Keating 0014-A1)							81				79	79					
8	Noranda Exploration Co. Ltd. (Keating 0015-A1)											78	78					
9	MacMillan Energy Corp. (Groseilliers 0015)								83	83								
9	MacMillan Energy Corp. (42C/03SW 0028)	83	83			83		83										
10	Morissette, H. (42C/03NW 0014-A1)				83													

SEE PAGE 13-1,... NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

TYPE OF WORK (see Files Index Map) Exploration Files		Numbers below represent the year of the work ; e.g. 68 for 1968																		
										Airborne			Ground							
Map Ref. No.	Company/ Author (file number)	Geological	Geochemical	Trenching or Stripping	Drilling	Assay Data	Underground Work	Prospectus Notes Corresp		Mag	EM	Rad	Mag	EM	Rad	IP	Self Potential	Resistivity	Other Data	or footnotes
11	Proulx, P. (42C/03NW 0015)				83															
12	Tundra Gold Mines Ltd. (42C/03NW 0016)	85	85			85		85						85						
13	MacMillan Energy Corp. Ltd. (42C/03NW 0018)		85																	
13	MacMillan Energy Corp. Ltd. (42C/03NW 0017)		85																	
14	Tundra Gold Mines Ltd. (42C/03NW 0019)		83		83	83		83					83	83						
15	MacMillan Energy Corp. Ltd. (WP-Abbie Lake-1)				86															N-1

SEE PAGE 13-1,... NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

TYPE OF WORK (see Files Index Map) Exploration Files		Numbers below represent the year of the work ; e.g. 68 for 1968																			
Map Ref. No.	Company/ Author (file number)	Geological	Geochemical	Trenching or Stripping	Drilling	Assay Data	Underground Work	Prospectus Notes Corresp	Airborne Mag	Airborne EM	Airborne Rad	Ground Mag	Ground EM	Ground Rad	Ground IP	Ground Self Potential	Ground Resistivity	Other Data	Footnotes
16	Granges Exploration Ltd./MacMillan Energy Corp. Ltd. (WP-Abbie Lake-2)				86														N-1
17	Rise Resource Ltd. (WP-Abbie Lake-3)								88	88									N-1
18	Alotta Resources Ltd. (WP-Abbie Lake-4)								88	88									N-1
19	Daiwan Engineering Ltd. (WP-Abbie Lake-5)								88	88									N-1
20	Daiwan Engineering Ltd. (WP-Abbie Lake-6)								89	89									N-1
21	Daiwan Engineering Ltd. (WP-Mishibishu-22)								89	89									N-1

SEE PAGE 13-1,... NOTES, FOR ITEMS LISTED BY NUMBER IN THIS COLUMN

DRILLHOLE SUMMARY									
Map Drill Loc. No.	Company Name	Company Drillhole Number	Date Drill-ed	Bearing and Azimuth	Init. Dip of Hole	Over-burden Thick-ness	Hole Length	Log Mineraliza-tion	Assay data in log
1	Noranda Exploration Co. Ltd. (42C/03NW 0013-A1)	AL79-2#	1979	150	-50	8.0′	179.0′	IF	Au, Ag, Cu, Zn
2	Noranda Exploration Co. Ltd. (42C/03NW 0013-A1)	AL79-1#	1979	150	-50	0	187.0′	py, po	Au, Cu, Zn
3	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-1	1983	160	-50	4.0′	646.0′	qcv, jas, mi, tour, mag, py, carb, ch, cal	Au
4	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-2	1983	160	-50	5.0′	511.0′	qcv, qv, mi, carb, py, po, (+vg?), tour	Au
4	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-3	1983	160	-50	12.5′	207.0′	cal, q, carb, qcv	sludge Au
5	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-4	1983	160	-50	20.0′	417.0′	py, qcv, jas, (Vg?), mag, ch, cal	sludge Au
6	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-5	1983	?	-50	6.0′	527.0′	q, qcv, carb, py, cal, jas, cp, ch	sludge Au

DRILLHOLE SUMMARY									
Map Drill Loc. No.	Company Name	Company Drillhole Number	Date Drill-ed	Bearing and Azimuth	Init. Dip of Hole	Over-burden Thick-ness	Hole Length	Log Mineraliza-tion	Assay data in log
6	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-7	1983	?	-35	6.0′	465.0′	ep, serp, py, carb, qv	
7	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-6	1983	south	-50	3.0′	398.0′	py, cal, qcv, tour, q	Au
8	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-8	1983	south	-50	88.0′	511.0′	cal, qcv, ch, carb, jas	Au
9	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-9	1983	?	-40	6.0′	446.0′	qv, jas, qcv, tour, cp, fu, IF, py, ch	Au
10	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-10	1983	south	-50	4.0′	250.0′	py, tour, cp, qcv, fu	Au
10	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-18	1983	south	-50	6.0′	220.0′	py, qv, tour, jas, IF	Au
11	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-11	1983	?	-33	2.0′	443.0′	qv, qcv, mag, tour, cp, py, jas, ep, fu	Au
12	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-12	1983	?	-40	4.0′	468.0′	qv, py, carb, qcv, fu, jas, tour, IF, mag	Au

DRILLHOLE SUMMARY									
Map Drill Loc. No.	Company Name	Company Drillhole Number	Date Drill-ed	Bearing and Azimuth	Init. Dip of Hole	Over-burden Thick-ness	Hole Length	Log Mineraliza-tion	Assay data in log
13	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-13	1983	?	-35	97.0′	428.0′	py, qcv, jas, fu, qv, tour, ch	Au
14	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-14	1983	?	-40	2.0′	343.0′	qcv, py, IF	Au
15	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-15	1983	?	-60	77.2′	810.0′	qcv, py, fu, tour, IF, qv, ep	Au
16	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-16	1983	?	-50	6.0′	291.0′	py, q, fel, IF	Au
17	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-17	1983	?	-50	6.0′	343.0′	IF, qv, tour, qcv, py, fu	Au
18	Tundra Gold Mines Ltd. (42C/03NW 0019) (42C/03NW 0015)	K-19	1983	?	-50	2.0′	406.0′	qv, py, tour, IF, fel, mag	Au
19	Tundra Gold Mines Ltd. (42C/03NW 0014-A1) (42C/03NW 0019)	K-20	1983	south	-50	12.0′	400.0′	py, cp, ch, IF	Au, Cu
19	Tundra Gold Mines Ltd. (42C/03NW 0014-A1) (42C/03NW 0019)	K-21	1983	south	-70	12.0′	326.0′	py, qv, carb, IF, ch	Au, Cu

DRILLHOLE SUMMARY									
Map Drill Loc. No.	Company Name	Company Drillhole Number	Date Drill-ed	Bearing and Azimuth	Init. Dip of Hole	Over-burden Thick-ness	Hole Length	Log Mineraliza-tion	Assay data in log
20	MacMillan Energy Corporation Ltd. (WP-Abbie Lake-1)	M-55	1986	south	-60	4.27′	164′	qv, py, po	Au
21	Granges Exploration Ltd MacMillan Energy Corp. Ltd. (WP-Abbie Lake-2)	M-91	1986	south	-55	6.09′	63.09′	py, po, qv	Au
22	Granges Exploration Ltd MacMillan Energy Corp. Ltd. (WP-Abbie Lake-2)	M-92	1986	south	-50	3.65m	63.09m	py, po, qv	Au
23	Granges Exploration Ltd MacMillan Energy Corp. Ltd. (WP-Abbie Lake-2)	M-93	1986	south	-50	6.70m	63.09m	py, qv	Au

Map Index No.	AIRBORNE GEOPHYSICAL SURVEY DATA		Flight Altitude	Flight Line Direct.	Flight Line Spacing
	-by -for -year	Type of Survey			
4	-by Aerodat Ltd. -for Tundra Gold Mines Ltd. -1983	-a. Geometrics G-803 magnetometer -b. Aerodat 3 frequency electromagnetic -c. Herz Totem 2A VLF-EM system	150′ 100′ 150′	N-S	660′
9	-by Aerodat Ltd. -for MacMillan Energy Corp. -1983	-a. Geometrics G-803 magnetometer -b. Aerodat 3 frequency electromagnetic -c. Herz Totem 2A VLF-EM system	150′ 100′ 150′	NE-SW	660′
17	-by H. Ferderber Geophysics Ltd. -for Rise Resources Ltd. -1988	-a. GEM systems GSM-11 magnetometer -b. Herz Totem 2A VLF-EM system	300′	N-S	400′
18	-by H. Ferderber Geophysics Ltd. -for Alotta Resources Ltd. -1988	-a. GEM systems GSM-11 magnetometer -b. Herz Totem 2A VLF-EM system	300′	N-S	400′
19	-by Terraquest Ltd. -for Daiwan Engineering Ltd. -1988	-a. Proton precession (Overhauser) magnetometer -b. Herz Totem 2A VLF-EM system	100m	360	100m

ABBIE LAKE

Map Index No.	AIRBORNE GEOPHYSICAL SURVEY DATA		Flight Altitude	Flight Line Direct.	Flight Line Spacing
	-by -for -year	Type of Survey			
20	-by Terraquest Ltd. -for Daiwan Engineering Ltd. -1989	-a. PMAG 3000 magnetometer -b. Herz Totem 2A VLF-EM system	100m	360	100m
21	-by Terraquest Ltd. -for Daiwan Engineering Ltd. -1989	-a. PMAG 3000 magnetometer -b. Herz Totem 2A VLF-EM system	100m	360	100m

Map Site No.	GEOCHEMICAL SURVEY DATA		By	Reference(s)
	Type of survey	Analysis for		
1	Lake Sediment and Water Geochemical	Zn, Cu, Ni, Pb, Co, Ag, Mn, As, Mo, Fe, U, F	OGS-GSC	OGS OFR 5267
2	Stream and Spring Sediment	Cu, Ni, Zn, Co, Mn and cold extractable heavy metals	Wolfe, W.J. for the OGS	ODM GR 158 and 6 Maps
3	Rock Sampling	Au	Tundra Gold Mines Ltd.	file 42C/03NW 0016
4	Soil Sampling from "B" Horizon	Au	MacMillan Energy Corporation Ltd.	file 42C/03NW 0017 file 42C/03NW 0018
5	Soil Sampling from "B" Horizon	Au	Tundra Gold Mines Ltd.	file 42C/03NW 0019
6	Soil Sampling from "B" Horizon & Rock Sampling	Au	MacMillan Energy Corporation Ltd.	file 42C/03SW 0028

GEOCHRONOLOGY DATA – AGE DATING

Site No. on Map	Method	Material	Reference	Result

AERIAL PHOTOS; MOSAICS; IMAGERY

The following items are available for inspection at the Resident Geologist Office

(a) Aerial Photographs

1. 1" to 1/4 mile, black & white, 1980; see addenda (p. 15-1) for details

(b) Photomosaics

(c) Satellite Imagery

1. Canada Centre for Remmote Sensing Side Aperture Radar - HS880175 (C)93, May 1988 1:50 000 (Black & White)

2. Canada Centre for Remote Sensing Side Aperture Radar - HS880173 (C)85, May 1988 1:50 000 (Black & White)

3. Experimental Composite of Airborne Radar (SAR) and Total Field Aeromagnetics, SAR Data Acquired 24-may-88 by CCRS Radar Development Program. Total Magnetic Field Derived from Digital Archives of OGS Map 81 143 R. B. Barlow. Processed at Ontario Centre for Remote Sensing/MNR 10-Feb-89 1:50 000

4. Experimental Composite of Airborne Radar (SAR) and Total Field Aeromagnetics SAR Data Acquired 24-May-88 by CCRS Radar Development Program. Total Magnetic Field Derived From Digital Archives of OGS Map 81 143 R. B. Barlow. Processed at Ontario Centre for Remote Sensing/MNR 10-Feb-89 1:100 000

TOPOGRAPHIC MAPS (selected)			
Scale	Year	Name and/or Number	By
1: 50 000	1970	Mishibishu Lake: NTS 42C/3	Surveys and Mapping Branch: Department of Energy, Mines and Resources
1: 100 000	1979	Pukaskwa River: NTS 42C/SW and part of 42D/E	Surveys and Mapping Branch: Ministry of Natural Resources

NEWSPAPER CLIPPINGS FILE			
PAPER	ISSUE DATE(S)	PAGE	ARTICLE HEADLINE OR COMPANY AND/OR SUBJECT
?	02/26/70		Miro Mines Options New Copper Property to Phelps-Dodge
?	06/11/70		Miro Watches Drilling on adjoining property
Northern Miner	03/17/83	12	Tundra Gold Mines Ltd.
Georger Cross Newsletter	07/12/83		Tundra Gold Mines Ltd.
Georger Cross Newsletter	07/26/83	2&3	Tundra Mines Ltd.
Georger Cross Newsletter	07/27/83		Tundra Mines Ltd.
?	07/28/83		Tundra sampling returns numerous gold values
Northern Miner	09/01/83	12	Tundra Gold Mines Ltd.
?	09/13/83		Nine drill Rigs for Tundra projects
Northern Miner	10/20/83		Mishibishu Lake area now alive with gold exploration projects Tundra Gold Mines
Northern Miner	09/16/85		Granges/MacMillan Deal on Mishibishu Property Granges Exploration Ltd

NEWSPAPER CLIPPINGS FILE

PAPER	ISSUE DATE(S)	PAGE	ARTICLE HEADLINE OR COMPANY AND/OR SUBJECT
Northern Miner	02/22/88	24	The Applegath Group of Companies-Mishibishu Lake area Property map of the Mishibishu Lake area Northwestern Ontario Oneida Resources Inc.
Northern Miner	03/28/88	1&6	Mishibishu Lake area gets "hotter" Noranda Exploration Company Ltd.
News Release	05/09/88		Mishibishu Lake area, Northwestern Ontario Alotta Resources Ltd.
Northern Miner	05/16/88	16	The Applegath Group of Companies-Mishibishu Lake Area Property map of the Mishibishu Lake area Northwestern Ontario Alotta Resources Ltd.
News Release	05/19/88	3&4	Mishibishu Lake area, Northwestern Ontario Alotta Resources Ltd.
Northern Miner	05/30/88	24	The Applegath Group of Companies-Mishibishu Lake area Property Map of the Mishibishu Lake area Northwestern Ontario Hemlo Gold Mines Inc.
Northern Miner	06/06/88		Mishibishu gold camp Alotta Resources Ltd.
Northern Miner	06/13/88		Mishibishu is hotter area than ever Noranda Exploration Company Ltd.

NEWSPAPER CLIPPINGS FILE			
PAPER	ISSUE DATE(S)	PAGE	ARTICLE HEADLINE OR COMPANY AND/OR SUBJECT
Northern Miner	06/13/88	A16	The Applegath Group of Companies-Mishibishu Lake area Property Map of the Mishibishu Lake area Northwestern Ontario Hemlo Gold Mines Inc.
George Cross Newsletter	06/22/88		The Applegath Group of Companies-Mishibishu Lake area Hemlo Gold Mines Inc.
George Cross News Letter	06/30/88		Alotta Resources Ltd.
Northern Miner	07/04/88	28	The Applegath Group of companies-Mishibishu Lake area Tundra Gold Mines Ltd.
George Cross News Letter	07/15/88		Mishibishu Lake area map The Applegath Group of Companies-Mishibishu Lake area Alotta Resources Ltd.
?	08/22/88		The Applegath Group of Companies Tundra Gold Mines Ltd.
Northern Miner	09/05/88	28	The Applegath Group of Companies-Mishibishu Lake area Tundra Gold Mines Ltd.
Northern Miner	09/19/88	27	Kabenung Project Tundra Gold Mines Ltd.
George Cross Newsletter	03/06/89		Tundra project review

NEWSPAPER CLIPPINGS FILE			
PAPER	ISSUE DATE(S)	PAGE	ARTICLE HEADLINE OR COMPANY AND/OR SUBJECT
George Cross Newsletter	03/10/89		Tundra Gold Mines Ltd.

OGS/ODM GENERAL INDEX SEARCH

Words Searched:

Abbie Lake

East Pukaskwa River

Ellen Lake

Granite

Macassa Creek

Miromines Ltd.

Phelps Dodge Corp. of Canada Ltd.

Index Volume	Listing	Report Volume	Part	Page
1	Ellen Lake, Michipicoten mg. division			
	Country north of, character	14	1	281
	Rocks near	14	1	349
	Dore Conglomerate	14	1	346
2	No listings			
3	Macassa Cr, Pukaskwa R.			
	Character	49	9	4
	Rocks, notes and photo	49	9	7,9
	Pukaskwa River, L. Superior			
	East branch, description and photo	49	9	4,5
	mineralization near	49	9	12
	rocks	49	9	10
	Iron formation, near	49	9	12
4	No listings			
5	No listings			
6	No listings			
7	No listings			
8	Abbie Lake Area	MP 22		33
	Pukaskwa Operation, Thunder Bay & Algoma District Summary of Field Work, 1968 by G. Bennett, P.C. Thurston and J.F. Giguere	MP 22		31-34

OGS/ODM GENERAL INDEX SEARCH

Words Searched:

Index Volume	Listing:	Report Volume	Part	Page
9	Abbie Lake Pukaskwa river Area, Thunder Bay District	GR 153		15,23, 24,35, 39
	Granite University River Area, Algoma District	GR 153		28
	Miramines Ltd. Pukaskwa R. Area, Thunder Bay District Report on property	GR 153		51
	Phelps Dodge Corp. of Canada Ltd. Pukaskwa River Area, Thunder Bay District	GR 153		51
	Pukaskwa Area, Algoma and Thunder Bay Districts Geochem Study of the area Report on, 1976 by W.J. Wolfe	GR 158		
	Pukaskwa River Area, Algoma and Thunder Bay Districts Report (quaternary) and map 5096 on, 1979 by John F. Carter and D.F. McQuay	NOEGTS 72		

SELECTED REFERENCES			Reference	Map Scale and/or Reprt/Pages
Author	Date	Title		
Algoma Central Railway	1964	Mishibishu Lake - Pokei Lake	ACR Map 42C 3 & 6	1"=1mile
Barlow, R. B.	1988	Total Magnetic Field Colour Image, Developed from Digital Archives of the OGS, Wawa Area, Districts of Algoma, Thunder Bay and Sudbury	OGS Geophysical/ Geochemical Series Map 81143	1: 100 000
Barlow, R. B.	1988	Calculated Second Vertical Derivative Colour Image, Developed from Digital Archives of the OGS, Wawa Area, Districts of Algoma, Thunder Bay and Sudbury	OGS Geophysical/ Geochemical Series Map 81144	1: 100 000
Barlow, R. B.	1988	Directionally Shadowed Total Magnetic Field Colour Image, Developed from DigitalArchives of the OGS, Wawa Area, Districts of Algoma, Thunder Bay and Sudbury	OGS Geophysical/ Geochemical Series Map 81145	1: 100 000
Bell, J. M.	1905	Iron Ranges of Michipicoten (West)	OBM AR Vol. 14, Pt. 1, with Map 14a	p. 278-355 1: 126 720
Bennett, G. Thurston, P. C.	1977	Geology of the Pukaskwa - University Rivers Area, Districts of Algoma and Thunder Bay	ODM GR 153 and 2 Maps	60 pages 1"=1mile

SELECTED REFERENCES				
Author	Date	Title	Reference	Map Scale and/or Reprt/Pages
Bennett, G. Thurston, P. C.	1972	Operation Pukaskwa, Districts of Algoma and Thunder Bay, Ontario	OGS OFR 5073	93 pages
Bennett, G. Thurston, P. C. Giguere, J. F.	1972	University River Sheet	ODM Map 2333	1"=1mile
Bennett, G. Thurston, P. C. Giguere, J. F.	1969	Operation Pukaskwa	ODM Prelim. Map P. 541	1"=2miles
Bennett, G. Thurston, P. C. Giguere, J. F.	1969	Operation Pukaskwa, Pukaskwa River Sheet, Districts of Thunder Bay and Algoma	ODM Prelim. Map P. 507	1"=1mile
Bennett, G. Thurston, P. C. Giguere, J. F.	1968	Summary of Field Work by the OGS, No. 12, Operation Pukaskwa, Districts of Thunder Bay and Algoma	OGS MP 22	p. 31-34
Bowen, R. P.	1987	Precambrian geology of the Mishibishu Lake area	OGS OFM 38	1"=1/4mile
Bowen, R. P.	1986	Mishibishu Lake Area, Districts of Algoma and Thunder Bay	OGS MP 132	p. 107-110

SELECTED REFERENCES			Reference	Map Scale and/or Reprt/Pages
Author	Date	Title		
Bowen, R. P. Logothetis, J.	1985	Mishibishu Lake Area, Districts of Algoma and Thunder Bay	OGS MP 126	p. 78-82
Coleman, A. P.	1899	Map of the Western Part of the Michipicoten Mining Division, Algoma District	OBM Map 8b	1: 253 440
Gartner, J. F. McQuay, D. F.	1979	Pukaskwa River Including Michipicoten Island: Northern Ontario Geology Terrain Study	NOEGTS Study 72 with Map 5096	14 pages 1: 100 000
Heather, K. B.	1985	Gold Showings of the Mishibishu Lake Area, Thunder Bay District	OGS MP 126	p. 83-89
Milne, V. G. et al	1972	Manitouwadge - Wawa Sheet	ODM Map 2220	1"=4miles
ODM-GSC	1963	Aeromagnetic Map: Mishibishu Lake	ODM-GSC Aeromagnetic Series Map 2176G	1"=1mile
OGS-GSC	1979	Regional Lake Sediment and Water Geochemical Reconnaissance	OGS OFR 5267 and 16 Maps	83 pages 1: 250 000

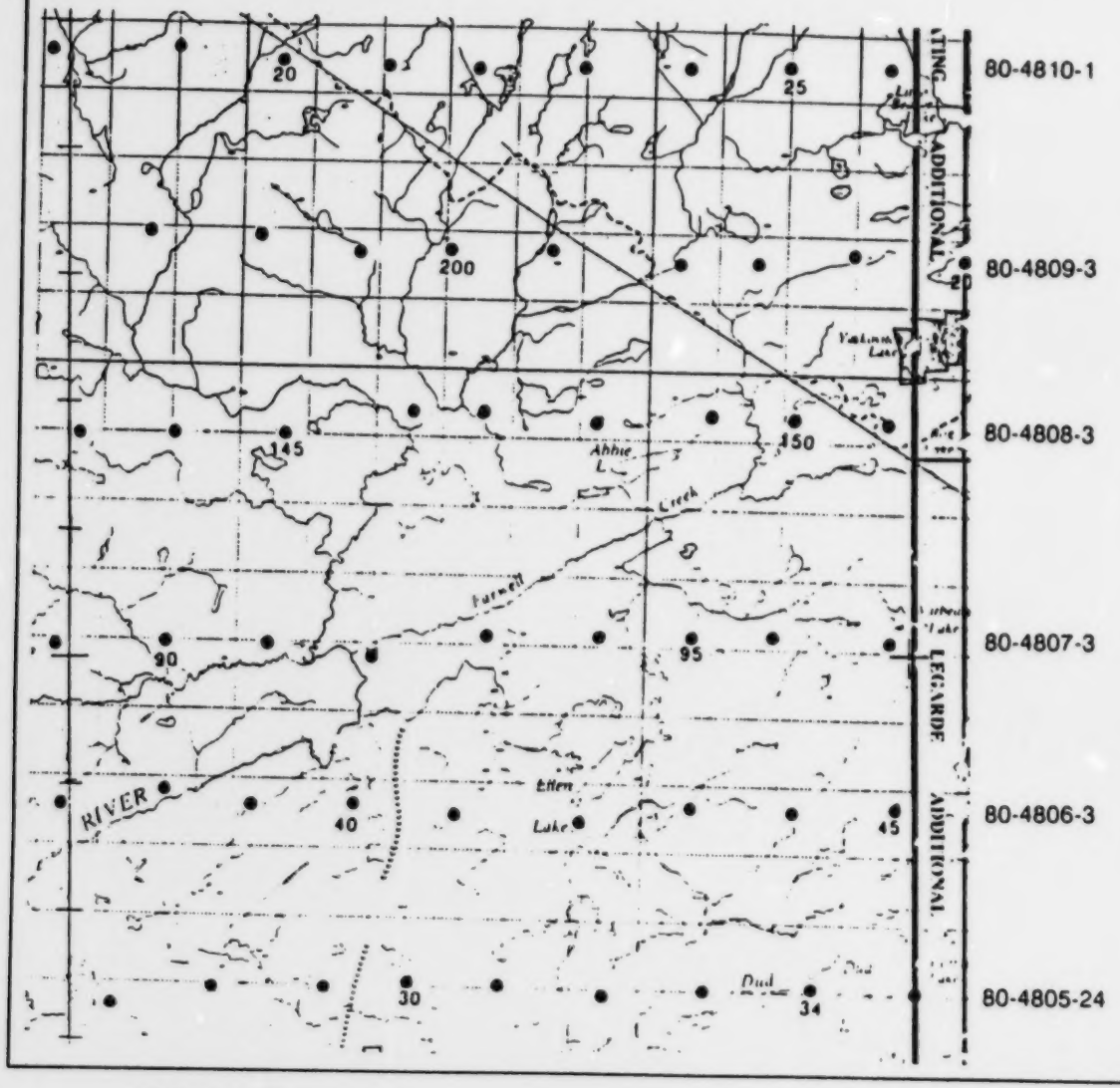
SELECTED REFERENCES				
Author	Date	Title	Reference	Map Scale and/or Reprt/Pages
Springer, Janet	1977	Ontario Mineral Potential: White River Sheet	OGS Prelim. Map P. 1519	1: 250 000
Wolfe, W. J.	1976	Regional Geochemical Reconnaissance of Archean Metavolcanic - Metasedimentary Belts in Pukaskwa Region, Algoma and Thunder Bay Districts	ODM GR 158	54 pages
Wolfe, W. J.	1973	Regional Geochemical Reconnaissance of Archean Metavolcanic - Metasedimentary Belts in the Pukaskwa Region, Algoma and Thunder Bay	OGS OFR 5091	62 pages
Wolfe, W. J.	1973	Geochemical Reconnaissance in Archean Metavolcanic - Metasedimentary Belts of the Pukaskwa Region, Ontario	Can. Inst. of Min. & Met., Vol. 66	p. 75-83
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Cold Extractable Heavy Metals in Stream and Spring Sediments	ODM Prelim. Map P. 508	1"=1mile
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Geochemistry of Copper in Stream and Spring Sediments	ODM Prelim. Map P. 509	1"=1mile
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Geochemistry of Zinc in Stream and Spring Sediments	ODM Prelim. Map P. 510	1"=1mile

SELECTED REFERENCES				
Author	Date	Title	Reference	Map Scale and/or Reprt/Pages
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Geochemistry of Manganese in Stream and Spring Sediments	ODM Prelim. Map P. 511	1" = 1mile
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Geochemistry of Nickel in Stream and Spring Sediments	ODM Prelim. Map P. 512	1" = 1mile
Wolfe, W. J. Wright, G. R.	1969	Operation Pukaskwa, Districts of Thunder Bay and Algoma: Geochemistry of Cobalt in Stream and Spring Sediments	ODM Prelim. Map P. 513	1" = 1mile

Note #	NOTES
0	This GDIF covers the NTS area 42C/03NW which is known as the Abbie Lake area.
1	The following is a list of Wawa file numbers with their corresponding Toronto (Assessment Files Research Office) file numbers: 42C/03NW 0016 - 2.8760 42C/03NW 0017 - 2.8993 42C/03NW 0018 - 2.9162 42C/03NW 0019 - 2.8825 WP-Abbie Lake-1 - 00.14 WP-Abbie Lake-2 - 00.15 WP-Abbie Lake-3 - 2.11298 WP-Abbie Lake-4 - 2.11323 WP-Abbie Lake-5 - 2.12270 WP-Abbie Lake-6 - 2.12438 WP-Mishibishu-22 - 2.12437
2	*The trenches on this GDIF (under Mineral Occurrences letter D) are not found in any files; see ODM Map P.507.

ADDENDA

Map showing air photos available for viewing at Wawa Resident Geologist's Office, see p.9-1



ABBIE LAKE

CONVERSION FACTORS

Conversion from SI to Imperial			Conversion from Imperial to SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
		LENGTH			
1 mm	0.039 37	inches	1 inch	25.4	mm
1 cm	0.393 70	inches	1 inch	2.54	cm
1 m	3.280 84	feet	1 foot	0.304 8	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	1.609 344	km
		AREA			
1 cm^2	0.155 0	square inches	1 square inch	6.451 6	cm^2
1 m^2	10.763 9	square feet	1 square foot	0.092 903 04	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
		VOLUME			
1 cm^3	0.061 02	cubic inches	1 cubic inch	16.387 064	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
		CAPACITY			
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	4.546 090	L
		MASS			
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
		CONCENTRATION			
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in cooperation with the Coal Association of Canada.

For further information please contact: Wawa Resident Geologist's Office
Ministry of Northern Development and Mines
Helen Mine Road
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Wawa, Ontario
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ABBIE LAKE

MAP LEGENDS

A. FILES INDEX MAP

FILE AREAS See pages 4-1,2 .... of text

- ■ Reference number is always inside work area outlined. See listing in text pages.
- ☐ Small area of exploration data
- ☐ File covers whole township or area
- ☐

B. EXPLORATION DATA MAP

MINERAL OCCURRENCES: See pages 3-1,2__ of text

- ■ Mineral occurrence at surface, with reference letter
- ☐ Mineral occurrence with shaft, depth given with reference letter
- ☐ Mineral occurrence reported but exact location uncertain, with reference letter
- ☐ Mineralized float with reference letter
- ☐ Mineral occurrence encountered in drilling, with reference letter
- ☐

DRILLHOLES: See pages 5-1,2__ of text

- ☐ Location of single drillhole, with reference number
- ☐ Location of group of closely spaced drillholes, with reference number
- ☐ Drillhole, exact location uncertain, with reference number
- ☐ Property with underground drillholes in this general area, with reference number
- ☐ Property with drillholes which have not been plotted on map, with reference number
- ☐ Reverse circulation drillhole; churn drilling, with reference number
- ☐

GEOCHEMICAL: See pages 7-1,2__of text

- ■ Geochemical sample site, with reference number
- ■ Area of geochemical sampling, with reference number
- ☐

GEOPHYSICAL ANOMALIES

Airborne Surveys: See pages 6-1,2__ of text

- ☐ Airborne magnetic anomaly
- ■ Airborne electromagnetic anomaly Length of anomaly along flight line
- ■ Airborne electromagnetic anomaly Location of anomaly along flight line
- ■ Airborne electromagnetic anomaly Conductor axis definite, probable, possible
- ☐ Airborne electromagnetic anomaly Conductor axis Location of flight lines uncertain
- ☐ Airborne radiometric anomaly

Ground Surveys

- ☐ Ground magnetic anomaly
- ■ Ground electromagnetic anomaly (VL Vertical loop, HL Horizontal loop VLF Very low freq., Turam; JEM Crone Em 16)
- ☐ Ground radiometric anomaly
- ☐ Induced polarization anomaly
- ☐ Self potential anomaly
- ☐ Audio frequency magnetic anomaly (total intensity)
- ☐ Resistivity anomaly
- ☐ Gravity anomaly
- ☐

GEOCHRONOLOGICAL DATA: See page 8 of text

- ☐ Age dating material sampling site, with reference number
- ☐

MISCELLANEOUS DATA

- ☐ Trenching, pit
- ☐ Adit
- ☐ Sand and or gravel pit
- ☐ Rock quarry
- ☐ Open pit
- ☐
- ☐

MAPS
NOT
FILMED

CARTES
OMISES